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ORIGINAL ARTICLES.

Traumatic Keratitis.

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Read before the Kansas Medical Society May 14, 1897.

Among the most important eye conditions coming under the care of the general practitioner, there is none which requires any more care than the treatment of corneal ulcers.

The object of this paper is to consider such ulcers with their complications which may arise from traumatism, and to deal particularly with the treatment of them.

Traumatic keratitis is an affection of the cornea characterized by more or less involvement of the lids, and conjunctiva, a varying degree of pericorneal redness, loss of corneal tissue, pain, photophobia, and lachrymation.

The trauma may be a foreign body, such as a cinder, a particule of dust, or a wild hair, a scratch from the finger nail, a burn; indeed, anything that may cause an abrasion of the epithilial covering of the cornea.

From the simple ulcer, a mere abrasion which soon renews itself, we may have the infected ulcer with hypopyon, with iritis, or usually with both; from the infected ulcer a sloughing ulcer may arise, or an abscess, or an onyx. The ulcer may cause such a loss of tissue that it perforates.

The diagnosis is easily made from the history, yet it is well to eliminate the causal factors producing the various forms of keratitis so that the treatment may be judicious.

Whatever the ætiological factor may be, the prognosis will depend upon how soon treatment is instituted; the position of the injury; the condition of the lids, the lachrymal apparatus, and the nose; and the general condition of the patient.

If an injury to the cornea is seen early and proper treatment immediately begun, it will generally respond very rapidly, and the more serious complications avoided. The position of the lesion will greatly determine the amount of permanent injury sustained. If it lies in line of direct vision, an opacity may result, and there will always be more or less impairment of the visual acuity. If it lies without this area, the only annoyance may be from the disfigurement.

The condition of the lids alone may be sufficient to aggravate what would be ordinarily a simple abrasion, or ulcer, and give rise to some of the serious complications. Hence, although examination of the lids should be made, and any inflammation, whatever its nature—acute, follicular, granular, etc.—should receive its appropriate treatment in conjunction with the usual treatment for the ulcer.

The lachrymal apparatus and the condition of the nose should also be inquired into, for many of our worst forms of infected and sloughing ulcers are due to a dacryocystitis, a constricted duct, or a septic or atrophic rhinitis.

The general health of the patient is an element in consideration of the prognosis that needs attention. In the old and debilitated, one will apprehend trouble.

In treatment, we have two lines to follow—local and general; and, with the local, the condition may be severe enough to call for operative interference.

So, under the head of treatment, we will take up, seriatim, local, general and operative measures.

In simple ulcers, some mild wash, such as boric acid, grs. ten to the ounce; boric acid with sodium biborate, or these two with a small amount of sodium chloride will usually suffice. If there is much pain, some cocaine may be added. A compress and bandage should be used to immobilize the lids, provided the amount of discharge does not contra-indicate them. If the pericorneal injection becomes marked, the iris hyperæmic, and pupil small, showing a tendency to iritis, the instillation of a weak solution of atropine will be required. If the iris readily responds, its use may be discontinued.

Under such measures, the ordinary ulcer will heal in short order. In an ulcer with a gray base, and gray, undermined edges, with spots of deep infiltration, especially foci of suppuration appearing here and there along the edges, we know we have an infected ulcer. What treatment to follow will greatly depend upon the length of time it took the ulcer to assume this condition, and now how rapidly it may be spreading.

Such an ulcer should be frequently cleansed, at least every hour. Some such powder as iodoform insufflated. A compress and bandage used. The dressing should be changed so frequently that there may be no damming back of the secretion.

Iodoform acts as it does in any septic wound, being an anæsthetic, an antiseptic, sedative, alterative, and a dessicant. Its mere presence is useful in filling up the crypts of the ulcer and preventing further action of the septic material. In the form of an ointment, the patient can use it very easily himself.

Often in cases where atropine is indicated, it has been customary to give a prescription for iodoform and atropine, to be used in an ointment with white vaseline or benzoated lard as the base.

Atropine has its indications and its contra-indications in these cases. If there is a marked iritic tendency, if the ulcer is central, it is needed; whereas, if the ulcer is peripheral, deep, and there is danger of perforation, eserine should be used. A hard-and-fast rule cannot be set forth, for even in certain peripheral ulcers atropine is useful.

Eserine is claimed to act especially favorably on the nutritive processes of the cornea, and is consequently very frequently used alternately with atropine. Its miotic effect will aggravate any iritic tendency, but will relieve tension. Its value in corneal cases is undoubtedly due to this fact. It thus allows a more rapid restoration of the corneal nutrition, and answers in a way to a paracentesis. The medical and operative procedures advanced for the treatment of these infected and rapidly spreading ulcers are really manifold, and include many of the drugs of the pharmacopœia. Among the antiseptics used, boric acid is the most common. Sublimate 1-4000, formalin 1-4000 are used.

In the nature of caustics and stimulants again drugs are numerous.

The septic infiltrated areas are carefully touched with pyoktanin, tr. opii, tr. iodine, carbolic acid, strong solutions of formalin, or corrosive sublimate 1-500 and 1-100.

Following a series of cases treated in various ways, the writer came to the conclusion that where the ulcer was rapidly spreading and taking on the nature of a slough, operative interference gave the most successful results.

Warm, or hot moist stupes are usually indicated. These stupes should be applied fifteen to twenty minutes, four to six times a day as a rule. In the earlier stages of a traumatic ulcer, it may be well to begin with cold compresses, but later, especially with infection, heat is better; it shortens the process, relieves the pain, and soothes the patient.

Pain is dealt with in several ways. The bandage, heat or frequent use of cocaine will control it fairly well, but often in severe cases morphine alone will relieve it. As in painful iritic cases, hypodermic subconjunctival injections of mercuric chloride solutions, normal salt or aqua distillata will often be of great advantage, not only in alleviating pain, but also in having a very favorable action in sustaining and reinforcing the nutrition of the cornea.

Where admissible, a firm roller bandage

with a compress has its distinct advantages. The bandage must be firmly and well adjusted. Everyone can put on a bandage, but not everyone can put one on satisfactorily.

In eye work, it is especially desired to have the roller carried upward at each turn over the injured organ. It will remain in position better, be firmer, will distribute pressure more evenly, and will be more comfortable to the patient.

The sloughing ulcer is treated in the same manner as the infected one. The process is more violent. The prognosis is more serious.

The general treatment consists in rest in bed, good sanitary surroundings, a light, nutritious diet, and the administration of tonics. Iron, quinine, strychnine, arsenic and milk punches are usually indicated. Often more is gained by the frequent use of such drugs in smaller doses than by giving larger ones three or four times a day. In cases in poor physical condition, we gave a tablet containing arsenic and strychnine, each gr. 1-100, and quinine, gr. ½ every two hours.

OPERATIVE TREATMENT.

In rapidly spreading infected ulcers, the curette is indicated early. After thoroughly cocainizing the eye, all necrotic tissue is removed, all points of suppuration; thus we have an ulcer as clean as possible. This surface is kept thoroughly and freely washed. Where the process is limited, a good result may be thus obtained, but the resulting opacity will be just as large as from the use of the cautery.

In conditions more extensive, or where the curette does not stop the process, no delay should be made in the use of the galvanocautery. In fact, its results are so great that if one were to choose a single measure he would always call for the cautery first.

Here the entire ulcer is thoroughly seared, especially along the edges. By using the special platinum tips, the amount of cauterizing can be nicely regulated. If necessary, an ordinary tenotomy hook, or knitting needle can be substituted, heating it over an alcohol lamp.

Paracentesis cornea is an operative procedure often giving brilliant results. With nearly all septic and sloughing ulcers, a hypopyon appears. If this is not soon absorbed, it is necessary to remove it by tapping the chamber. This paracentesis will, besides, relieve the tension on the cornea so that reparation changes will appear more rapidly. It can be easily performed with a broad curved needle, and will, in the majority of cases, shorten the destructive process very much.

In sloughing conditions in which the cautery has failed to produce any result, as a last resort, Sæmisch section must be considered. This is performed in several ways. Some are satisfied to cut through the base of the slough and extend the incision outwards. My observations led me to believe that it is better to carry the knife into the anterior chamber with the cutting edge turned directly out, and to bisect the whole slough. The anterior chamber will be abolished. The existing hypopyon evacuated, all necrotic tissue that can be removed is taken away with forceps. In healing, there is apt to be incarceration of the iris. The condition is desperate, however, and often a more satisfactory result is obtained than one could really anticipate.

CASE I.—*Traumatic Keratitis with Hypopyon.* S. M.—age, 59. Presented on examination a small infected ulcer, situated down and in near pupillary edge; aqueous turbid; small hypopyon; iris off color. Under atropine, heat, and rest, this hypopyon had not disappeared. It was evacuated with a broad curved needle. The next day the wound was closed, chamber formed, and iris well dilated. The eye much quieter. Process limited. Patient was discharged eight days later. After the paracentesis, the improvement was surprisingly rapid, and undoubtedly due to the change in tension on the cornea.

CASE II.—*Traumatic Keratitis with Hypopyon.* H. S.—age, 40; laborer. Came with the history of having been struck in the left eye by piece of steel, on July 12th. Treated as an out-patient for one week. The ulcer became infected, and a rapidly increasing

hypopyon appeared. Admitted to the hospital July 18th, presenting the following on examination: Lids somewhat swollen, conjunctiva intensely injected, large superficial ulcerated area over pupillary space, with a deep active process extending up and out. Iris muddy and slightly dilated. Hypopyon about half-way up iris. Ulcer was curetted. Atropine and iodoform used, and compresses and bandage employed. Patient was put to bed. Quinine and strychnine given every two hours; punch, four times a day. July 19th, 10 A. M.—Again curetted. Area of cornea up and out apparently very necrotic. July 20.—More undermining up and out. July 25.—Ulcer curetted and cauterized. July 25.—Ulcerative process having extended around limbus to inner side, it was again cauterized. On cauterizing up and out, cornea was accidentally perforated. Chamber lost. Hypopyon spread out over iris. July 28.—Chamber not formed. Ulcerative process extending. Eye evidently lost. August 2.—Wound closed. Chamber formed. Process limited. Some clear cornea directly in. August 21.—Patient discharged. Eye quiet. Cornea clearing. Vision equal to fingers at twenty feet. Reparative changes began with the accidental perforation of the cornea.

CASE III.—*Traumatic Abscess of Cornea.* R. R.—age, 38. Struck in left eye with piece of steel July 9th. Examination, July 15th, showed an infiltrated traumatic keratitis down and out. Foreign body partially removed. Atropine, iodoform and compress bandage prescribed. Thoroughly curetted. August 17.—Process has not extended. Pupil dilated ad maximum. Eye free from pain. August 19.—Process limited. Cornea clearing. Out of bed. August 28.—Eye perfectly quiet. Large leucoma, now becoming clearer under calomel.

CASE IV.—*Infected Ulcer of Cornea.* J. M.—age, 63. Had piece of steel removed from left eye by electro-magnet May 15th. Reported for treatment daily. May 19.—Eye showed an infiltrated ulcer at site of wound with considerable œdema of the ocular conjunctiva. Admitted to the house. Ice compresses applied. May 19.—On account of chemosis, conjunctiva was snipped in several places. Ulceration has extended. Atropine, iodoform and ice. May 21.—Ulcerative process limited, conjunctiva still chemotic, cornea hazy. May 26.—Eye continues to do well. Ice stopped. Eserine alternated with atropine. May 30.—Patient discharged. Eye quiet.

CASE V.—*Sloughing Ulcer of Cornea.* E. R.—age, 16. Admitted August 15th for sloughing ulcer of the cornea down and out, of two weeks standing. Cauterized with carbolic acid. Treatment: Atropine, ice, iodoform. August 18.—Eye has done nicely. Out of bed. P. M.—Chamber very shallow. August 19.—Chamber abolished. Ulcer has perforated. Put to bed. August 20.—Chamber re-formed. August 21.—Chamber again lost. Patient has been very restless. August 22.—Chamber re-formed. Eye quieter. iris dilated. No adhesions. Augnst 24.—Out of bed. August 29.—Discharged. Eye quieter. Large opacity present.

CASE VI.—*Sloughing Ulcer of Cornea.* Mrs. B. Admitted May 15th, with sloughing ulcer situated on lower portion of the cornea of the right eye. Marked hypopyon. Ulcer cauterized. Sæmisch section made at lower portion, and as much pus and necrotic tissue removed as possible. Atropine. Hot stupes applied every two hours. May 16.—Although cornea was greatly infiltrated and thickened, wound closed nicely, and chamber re-formed. Eye looks better. June 12.—Eye has quieted down nicely. Iris good color. Pupil gone. Iris drawn together as in an iridocyclitis. This sloughing condition arose from a simple ulcer, which became infected from a purulent dacryocystitis.

CASE VII.—*Kerato-Iritis.—O. D.* J. C. B.—age, 41. Was struck in the right eye July 3d by splash of sulphur water from a sump. Tried the efficacy of charm treatment. Consulted a regular physician July 22d. Admitted to the hospital August 1st with a large corneal slough down, ulcerative process extending up and in almost to limbus. Large hypopyon. A Sæmisch section was made with the Graefe knife, and the contents of anterior chamber evacuated with spoon. Eserine. Ice. Iodoform. August

2.—Eye has quieted down very well. There has been no bulging. Iris bound down to lens all around, and pupillary area filled with membrane of lymph. Atropine. August 28.—Discharged to return for an iridectomy. Vision equals fingers at two feet. Eye quiet. Cornea clearing. Pupil central, and as above. Iritis gone. October 10.—Iridectomy made without any accident. Eye did well. Patient discharged with vision greatly improved. In this eye, no incarceration followed the Sæmisch section, but annular synechia was found on account of inability to free the iris. Tension resumed normal, and the eye became a serviceable one.

Biological Basis of Menstruation.

American Journal of Obstetrics.

Webster discusses the various theories which have been advanced to explain the meaning of menstruation. He believes that it is not a necessary accompaniment or sequel of ovulation, but that there is some relationship between the processes, as is shown by cessation of menstruation in many cases after removal of the ovaries. He mentions Lawson Tait's statement that removal of the tubes without the ovaries is followed in ninety-five per cent. of cases by the same result. A special nervous mechanism controlling menstruation, as suggested by Johnstone, probably exists, but to Webster it seems possible that it is plexiform rather than limited to a single nerve. The view that menstruation is a process by which the uterine mucosa is prepared to receive the fertilized ovum is rejected by the writer for many reasons, as are also other theories of the relation of menstruation to conception. The suggestion advanced by Geddes and Thompson, that the menstrual process is related to the balancing of anabolism and katabolism in the female organism is, however, considered worthy of study and forms the basis of the paper. He says that throughout the animal and vegetable kingdoms the distinctive characteristic of the male sex is katabolism and of the female anabolism, and he points out many reasons for this belief. In the female a surplus is produced in the system after puberty, because the anabolic preponderates over the katabolic. When pregnancy occurs this excess is spent in the nutrition of the ovum during its parasitic intra-uterine life and during lactation. When these methods of using the anabolic surplus are wanting, menstrual losses occur in order that it may be disposed of. The rhythmical character of the menstrual function has probably been gradually determined by the forces of evolution, and its marked variations in the human female (unassociated with pathological conditions) point very strongly to an early period of instability in the process, in which the present variations are probably atavistic reminiscences. Although most concisely stated in the author's article, it is impossible to present his reasons for these views in an abstract.

Primary Sterility.

University Medical Magazine.

Vedeler reports his investigation of 310 sterile women, all of which had been married more than one year. Seventy-two had been married ten or more years, and the average duration of married life in the remaining were three years. The examination of fifty of the husbands of these women determined that thirty-eight surely had had gonorrhea, and it was also determined that thirty-four (68 per cent.) of these had infected their wives. He says if it can be concluded that the result of the examination of these fifty sterile marriages be correct, then two hundred and thirty-five of the three hundred and ten husbands must have had gonorrhoea, and also that two hundred and ten wives were infected. That this last approaches the truth is shown in that, in one hundred and ninety-eight (44 per cent.) of the three hundred and ten women examined the same inflammatory signs of gonorrhea were found as in the above thirty-four, whose husbands undoubtedly had gonorrhea.

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Topeka, Kansas, Saturday, Oct. 30, 1897.

As there was no election of secretaries of the various sections of the State Society the old secretaries will hold over for the next meeting, and the duty of arranging a program will fall to them.

NONE can question the importance of a better education of the masses on the subject of the physiology of the sexual functions. A matter of so much importance to the health and development of a people needs more than a passing attention. The child should be taught what the man and woman have now to learn by experience. The physician has often to give advice on these subjects, but too often after vicious habits have been formed or the results of indiscretion are already manifest. What seems most necessary is a true teaching of the physiological functions of the sexual organs, and their proper care. From ignorance upon these matters men and women both suffer. For years there have been theorists and would-be reformers who would revolutionize the world, and change the laws of nature to suit the convenience of those whose requirements are the outgrowth of misconception. Woman, heralded as the slave of man's lust and passion, receives the commiseration of her sex. Her cries for relief from the burden of frequent child-bearing have not been unheeded, if we judge from the thousand and one erratic propositions suggested for her benefit. With the growth of the "new woman fad," and other eccentricities of the present times, sexual life has become a popular subject for numerous lucrary efforts, which consigned to the flames would better conserve the purpose for which they were intended. "Tokology" and "Karezza" are fair samples of this class. The latter, a recent work, undertakes to furnish a substitute for the natural exercise of the sexual function, and attempts to establish a foundation for the theory of sexual life upon a comparison of the formation of tears to the secretion of semen. The plan as proposed in "Karezza" contemplates preserving all the pleasures of sexual intercourse, without the dangers of conception. We have no desire to rehearse the details of "Karezza," but we can hardly imagine them to be other than the emanations from the brain of a confirmed celibate or a virtuous maid of mature years. No theory or proposition so discordant with nature can successfully meet the issue.

The animalism which holds its sway over the soul and passions of man yields its sceptre alone to intelligence, education and refinement. The false modesty which proscribes the mention of anything in connection with the natural sexual functions, in our places of public instruction, procrastinates the emancipation of woman from the slavery (?) of man's lust, exaggerates the motive and increases the tendency to crime. Our children should be taught to *know* themselves, and all the means for the preservation of health, and the conservation of vital

energy—a proposition which involves the truthful instruction in those branches of physiology which are tabooed by polite society, and proscribed in our public schools. It is essential to health and conducive to good morals.

Origin of Uric Acid.

Dietetic and Hygienic Gazette.

Every since physicians, aided by physiological chemists, learned to recognize the existence of uric acid as a factor associated with, and presumably causing, certain diseases, such as gout, the great question of its source of production has been before us. Quite recently it has become more or less the fashion (*Med. Press and Circular*) to regard uric acid as a product manufactured exclusively outside the body, and as introduced ready made in certain articles of diet, notably meat. It is odd, to say the least of it, that this view should have obtained such general acceptance, seeing that not even those who are responsible for its inception are able to state that they have ever discovered uric acid in the blood or tissues of healthy animals. These observers base their views on the fact that bodies of the xanthin class are discoverable in the tissues, and these they profess, on somewhat inadequate grounds, to regard as the equivalents of uric acid. This question crops up once more anent the treatment of gout by a diet exclusively composed of red meat, associated with the daily ingestion of large quantities of hot water. It may be conceded that great benefit attends this treatment, at any rate in certain cases of gouty arthritis; but this does not help us to solve the problem of its action, though it must be singularly disconcerting to those who regard the disease as one directly due to the excessive ingestion of the acid in meat. There is reason to believe that this protean disorder, as gout is so justly styled, owes its causation to more complex factors than its students are apt to believe. It is impossible to gainsay the evidence in favor of the tendency of a too starchy diet to favor the formation of uric acid, an influence which has been ascribed to the affinity of amylaceous food for oxygen, thereby interfering with the due oxidation of the nitrogenous ingesta. It may well be that it is the interaction of the various articles of diet that promotes the formation of the peccant material, though how these chemical changes come to pass is a question which still awaits elucidation at the hands of the physiologist.

Judging by the results obtained by practitioners of both schools, there must be some truth underlying both hypotheses, and it remains for us to eliminate the perplexities, and to arrive at a proper understanding of the chemico-physiological processes which govern the production and absorption of the acid. The problem is one of the greatest interest, but it would be rash to predict that we are within measurable distance of its elucidation.

The Value of Dover's Powder.

Monthly Retrospect.

In the *Journal des Practiciens* for April, 1897, is an article by Liegois upon Dover's powder. He first points out that this substance will very frequently relieve the pains, and cure, at least for a considerable period of time, muscular rheumatism; the doses varying from 5 to 10 grains for this purpose. Many years ago the French physicians were in the habit of administering from 1 to 2 grains of this powder to children of 4 to 6 years who were suffering from sub-acute articular rheumatism. He also believes that it is a remedy capable of doing very great good in measles and scarlet fever, since by the perspiration which it induces it aids in the development of the rash, and quiets the fever and nervous agitation. In certain cases it is well to administer it with sulphur. Thus a prescription may be written containing Dover's powder and washed sulphur, of each two or three grains. This will tend to move the bowels, and will also exercise a favorable influence upon any catarrhal process which may be present in the body. In cases of influenza Liegois believes that Dover's powder is

exceedingly useful in relieving the pain and inflammation of larynx and bronchi, the pain in the limbs, and many of the other characteristic concomitant symptoms. As a rule it is sufficient to administer 2 to 3 grains of the Dover's powder three times a day. Sometimes the following prescription is advisable—

Dover's powder.
Sulphate of quinine, aa 2 to 4 grs.
Powdered hyoscyamus leaves, ¼ gr.

Make into a pill or cachet and administer one or two each day.

In the case of pulmonary congestion complicating the eruptive fevers, the internal administration of small doses of Dover's powder is very beneficial. Again, in certain cases of diarrhea in adults or children, particularly if they have been exposed to heat, the combination of Dover's powder and mercury with chalk is useful. Thus we may prescribe:

Dover's powder, 1 gr.
Mercury, with chalk, 1 gr.
Extract of rhubarb, 1 or 2 grs.

A pill containing these quantities of these ingredients may be given three or four or more times a day. In diarrhea dependent upon tubercular enteritis cachets containing the following may be used:

Dover's powder, 2½ drs.
Compound chalk powder.
Calumba powder, aa 5 drs.

To be made into sixty cachets, and two or three are to be taken each day.

Medico-Legal.

Journal American Medical Association.

Liability of City for Health Officer Burning Property—The evidence in City of Dallas v. Allen showed that the city authorized its health officer, during an epidemic of smallpox in that city, to burn property which in his judgment was infected with the disease, when in his judgment it was necessary to do so to prevent its spread. In the execution of this authority he caused a house to be burned with its contents. This suit by the owner of certain of the contents, against the city, the health officer and the sureties on his official bond followed. The district court directed the jury to find against the city and in favor of the other defendants. The court of civil appeals reversed that judgment and remanded the cause. It says that the chief question was as to the right of the city to destroy property in the exercise of the authority conferred on it by its charter, to all acts and make all regulations which may be necessary for the promotion of health or the suppression of disease. It thinks that the governing rule is found in a decision of the supreme court of Texas relative to the destruction of a house by the fire department, where it held that property can be so disposed of without the city or its agents becoming liable; that such a taking does not violate the constitutional pledge that private property shall not be taken, damaged or destroyed for or applied to public use without adequate compensation being made, unless by consent of the owner. But the court of civil appeals thinks that a necessity for the demolition of the building for the purpose of checking the progress of the fire would have to be shown by the city, and the destruction of a house in an isolated place that could constitute no agency in communicating the threatened danger would not be justified. And it holds that to the same extent that a city can destroy the property of a citizen in checking a fire it can do it in stamping out an epidemic, with exemption from liability. There being in this case evidence both to the effect that the articles in question could and could not have been rendered innocuous by a simple process of disinfection, the issue of fact thus raised, it holds, should have been left to the jury to decide. Furthermore, the city having directed or authorized the destruction of the property, if it was wrongfully destroyed, the court holds that the city could not escape liability.

Dominion Medical Monthly.

Want of Skillful Treatment no Defense in Murder—In the murder case of State v. Edgerton, the supreme court of Iowa held that

the trial judge properly stated the law when he charged the jury that if they found from the evidence that the defendant inflicted wounds which caused or contributed to cause death, then he could not avoid the consequences of his act on the ground that the wounds were not treated according to the best and most approved methods of medical and surgical treatment for wounds of that character, and that the judge properly excluded certain expert and medical testimony, as well as some medical and surgical books offered by the defendant, tending to show that by proper treatment of the wounds of the deceased his life might or could have been saved, it being especially contended that if the physician called had resorted to "laparotomy" his patient might have recovered.

Daily Sun.

Judgment on Case Involving Sale of Practice—Equity Court, N. B., Barker, J., presiding. Judgment was also delivered in Ryan v. McNichol. This was an action for specific performance between two physicians at Sussex. Ryan moved to Los Angelos and sold his practice and leased his property to defendant, McNichols, for $200 a year. The plaintiff agreed not to practice for two years, and the defendant agreed at the end of two years either to purchase plaintiff's property or to refrain from practicing in Sussex, but on the expiration of the term refused either to purchase or to leave Sussex. He defended the action on the grounds that a physician's practice is not capable of sale; that Ryan had no practice to sell, and that the agreement is illegal. The decision was against the defendant, and a decree made for the specific performance of the contract.

Abdominal Massage.

British Medical Journal.

E. E. Ivanoff (*Vratch*) suggests a modification of Sahli's method of abdominal massage. Instead of a cannon ball he used a wooden or celloidin globe filled with shot, which is poured into the cavity through a hole furnished with a stopper. The quantity of shot should vary according to the patient's age, averaging about one pound for a child under two years, two pounds for two to four years old, three pounds for other children, and up to four or five pounds for adults. The author used the method successfully in a series of cases of very obstinate chronic constipation in children, in whom prolonged treatment with laxatives and enemata had utterly failed. The ball is rolled up and down along the course of the large bowel for two or three minutes, being pushed with a gentle touch of the palm of the hand The procedure should be repeated twice daily. The author thinks this form of massage will prove beneficial in:

1. Intestinal stricture following dysntery, typhoid fever, etc.
2. Chronic filtration about the womb and its appendages.
3. Atony of the bladder.
4. Neuralgias of limbs.

In comparison with Sahli's metal globes, the wooden or celloidin balls are said to offer the following advantages:

1. They do not cause any unpleasant sensation of chills.
2. Their weight can be easily varied according to the circumstances of the case.
4. They are very cheap.

Mixed Infection in Diphtheria.

Medicine.

In the *Riforma Medica*, 1896, Nos. 179 and 180, De Blasi and Russo-Travali have followed out the work begun by Roux and Yersin regarding association of the bacillus of Loeffler with other micro-organisms. The author examined 234 cases of membranous angina with the following results:

1. In twenty-six cases Loeffler's bacillus was absent. The staphylococcus, streptococcus, pneumococcus, and bacterium coli were found. The mortality was 3.8 per cent.
2. Loeffler's baccillus in pure culture was observed in 102; mortality 27 per cent.
3. Loeffler's bacillus was seen with the

staphylococcus pyogenes in seventy-six instances, the mortality being 33 per cent.

4. Loeffler's bacillus occurred with the streptococcus pyogenes and Frænkel's pneumococcus seven times with a mortality of 43 per cent.

5. Loeffler's bacillus and the streptococcus pyogenes twenty times, with 30 per cent. mortality.

6. Finally with the bacterium coli three times, with a mortality of 100 per cent.

The investigation determined that mixed infections of the Loeffler and colon bacilli were prognostically extremely grave. Two possibilities are considered in the explanation of the high mortality thus produced: first, that the Loeffler bacillus so reduces the physiological resistance that the virulence of the colon bacillus is comparatively increased; second, that the colon bacillus acquires an unusual virulence exterior to the body.

An Organic Salicylate Compound in Sub-Acute Rheumatism and Gout.

The Atlantic Medical Monthly.

George Howard Thompson, M.D., in the *American Journal Surgery and Gynecology*, reports as follows:

About two years ago, I read a paper before the St. Louis Academy of Medical and Surgical Sciences on the superiority of the organic over the inorganic salicylate in the treatment of rheumatism, in which special stress was laid upon methyl salicylate as administered in the form of oil of wintergreen and oil of sweet birch. The oil of wintergreen is about 90 per cent. methyl salicylate, while the oil of birch is pure methyl salicylate. These oils may be given, if necessary, in doses of from thirty to sixty minims three times a day, but I have seldom found it necessary, when giving them uncombined, to exceed twenty minims at a dose, though I have occasionally had to shorten the intervals to two hours. Methyl salicylate very seldom causes nausea or disturbs the stomach, a disadvantage common to the synthetically made salicylate acid and its salts.

My results in acute and recent subacute cases of rheumatism when treated with methyl salicylate have been invariably good; but I was not so fortunate with the subacute cases which were on the verge of becoming chronic, until I added colchicum to my oil of birch. This naturally was not mixed, but was at first alternated every four hours; twenty drops oil of birch with ten drops wine of colchicum seed. This method seemed to give better satisfaction, but syncope coming on in one case, and gastric irritation in another, warned me that this was not exactly what was desired to meet these cases.

About six months ago a combination of methyl salicylate with colchicin came under my notice just at a time when I wanted to modify my treatment in a case of sub-acute inflammatory rheumatism. This combination was in the form of a liquid encapsulated and hermetically sealed, each capsule containing the equivalent of three minims of pure methyl salicylate and one two hundred and fiftieth grain of pure colchicin under the name of colchi-sal, the proportions being therapeutically ideal.

The physiological actions of these two remedies are too well known to be discussed here in detail. They are both diuretic, antipyretic and antirheumatic, though on what the antirheumatic action depends we are as yet unable to say. There are other diuretics and antipyretics of greater or lesser energy which are not antirheumatic except in a most indirect way. We must accept the facts empirically that colchicum is a specific pallative in gout and rheumatism, and that methyl salicylate is a specific pallative in rheumatism and gout. Indeed, so energetic is the action of these agents in these and allied conditions that their influence may be stated as specifically curative. Numerous cases are reported occurring in his practice.

The wine of colchicum frequently nauseates even in the therapeutic dose of ten drops, and occasionally causes syncope. I remember a gentlemen in London, M. S., who called me to see him in an attack of acute gout in 1890. He had had previous

attacks. I prescribed the vinum colchici of the British Pharmacopœia in doses of ten drops every two hours until diaphoresis occurred or the bowels moved as a result. Within fifteen minutes patient was in a state bordering on collapse from which he rallied slowly. I was called hurriedly and arrived three hours later. I gave a second dose of ten drops, and remained to watch the effects. In fifteen minutes the patient was again suffering from syncope; atropine grains 1-100 hypodermically administered revived him. The outcome of this case does not concern us. Suffice it to say that I have ever since been extremely cautious of the wine of colchicum. I have never seen any effects from colchi-sal though I have administered it in many cases of subacute and chronic rheumatism, and some few cases of gout.

The Absorption of Mercury.

H. A. Hare, M.D., in Therapeutic Gazette.

The rapidity of absorption and elimination of mercury depends to a very great extent on the variety of it which is given. The drug in some forms is so soluble, in others so insoluble, that very great delay in its elimination must often ensue because it is slowly absorbed. It will be futile in this brief paper to discuss the form in which mercury is absorbed. It is usually taught in France that the theory of Miahl is correct; this is that the mercurial preparations are transformed in the stomach and intestine into the bichloride, which in turn unites with the sodium chloride in the blood and circulates as a double chloride of mercury and sodium. In Germany it is taught that it forms an albuminate of mercury and so circulates (Henoch's theory), or that it forms a chloro-albuminate (Voit's theory). All theories as to the form of its absorption are open to grave criticism. As to the elimination of mercury, it is known to escape by every avenue of exit from the body—the urine, feces, sweat, tears, milk and saliva. After a single dose the drug begins to be eliminated in about two hours, according to Byasson, and is entirely gotten rid of in 24 hours. If, however, the doses are persisted in it gradually accumulates in the body and is so slowly eliminated as to remain for almost indefinite periods of time, and is found deposited in all the organs. In other words, the doses of mercury ordinarily given are always large enough to produce cumulative effects. Thus while Balzer and Klumpke agree with Byasson as to the rapidity of elimination of a single dose, they find from an experimental study that the amount of mercury which can be eliminated by the kidneys for many weeks when the body is saturated with the drug is only one-sixteenth of a grain a day. It is evident therefore that after a full mercurial effect is produced it is well to decrease, as do most syphilographers, the dose of mercury and only give enough to maintain the effect. It is also evident that their plan of using iodide of potassium every now and again to aid in the elimination of the residual mercury is advisable.

Mimic Power of the Uterus.

Eastman.

The uterus, something like the parrot, will do the talking for every organ of the body and mimic every disease in the encyclopedia of pathology. The pelvic organs are as dials upon which are expressed the ills of the entire body in many of the neuroses. How few of us can positively differentiate between profound neurasthenia expressing itself in the pelvis and diseased pelvic organs causing and maintaining profound neurasthenia.

A Vapor Bath.

New York Medical Journal.

A writer in the *Presse Medicale* for June recommends the following mode of giving a vapor bath without removing the patient from bed: A woolen blanket is placed on the bed under the patient who keeps on his night robe. Under each foot and at each

side of the body a stone bottle containing boiling water is placed, each bottle having previously been wrapped in a very wet towel, and the whole covered with flannel. After the bottles are placed in position the woolen blanket is wrapped around the patient, and another blanket and an eiderdown quilt are put over him.

At the end of fifteen minutes the patient is in a veritable vapor bath, which induces a profuse perspiration, and he is kept in this condition for a varying length of time, according to the case. In order to favor sweating, one or two cupfuls of some hot infusion should be taken. After the patient has remained a sufficient length of time in the bath, the woolen blankets under him and the bottles are carefully withdrawn without exposing him, and he is then wiped dry under the other blanket and the quilt. At the end of twenty or thirty minutes the patient may have a change of linen.

Ætiology of Glaucoma.

Dudley S. Reynolds, M.D., in the Tri-State Medical Journal

He sums up his observations with the statement that glaucoma is always an inflammation of the ciliary muscle, or ciliary body, generally of both. That the iris always participates more or less in the inflammation; and that the peripheral portion of the choroid is early invaded. The only predispositions known are the rheumatic and gouty diatheses. A common exciting cause, independently of the diathetic conditions, is traumatism of the ciliary region.

Astigmatism, hypermetropia, and the prolonged use of the eyes by students and artisans, poorly nourished, may lead to incipient or chronic glaucoma, The prolonged use of the eyes in the presence of glaring light, with loss of sleep, may in some lead to augmented tension and peripheral narrowing of the field of vision. All the well-defined typical cases of glaucoma must, however, be admitted to occur in persons with rheumatic or gouty diatheses, or in those who have been the subject of traumatism of the ciliary region of the eye.

The ocular tension observed in syphilitic irido-cyclitis, extending, in neglected cases, to the choroid, retina, and vitreous, sometimes ignorantly called iritis serosa, presents in no stage of its development any clinical resemblance to true glaucoma.

Removal and Regeneration of the Spleen.

Landenbach reports having removed the greater portion of a dog's spleen, and at the end of six months there was a complete regeneration of the entire organ. The removal caused profound disturbance of digestion and impaired nutrition, but notwithstanding this fact the entire organ was reproduced.

THE proceedings of the Kansas Medical Society are now in the hands of the printer, and will soon be ready for distribution. The papers and discussions are not included in the printed report on account of the lack of funds.

DR. Henry Morgridge, son of Dr. G. O. Morigridge who was connected with the A. T. & S. Fe Hospital Association under Dr. Ransom, died recently.

Nose-Beed in Childhood.

Epistaxis in children, and particularly if the attacks be recurrent, is *frequently significant of organic heart disease*, and as a corollary thereto, in every case of epitaxis a physical examination of the heart should be made.

A German physician reports some experiments that lead him to conclude that absolute alcohol has no disinfecting power whatever. A fifty per cent. solution, however, appears to have this desired property.

Hydrozone for Disorders of the Genito-Urinary Tract.

Medical Times and Register.

Dr. John Aulde, of Philadelphia, states that about eight years ago he was forcibly impressed with the value of Peroxide of Hydrogen in a protracted case of gonorrhœa. The disease had persisted for three months despite the treatment of several attendants, there being a constant discharge, and in addition, there was an orchitis present, the left testicle being about as large as a baseball.

Treatment consisted of the local use of injections of equal parts of Peroxide of Hydrogen and moderately warm water, used at intervals of four hours, these injections being followed by a solution of arsenite of copper containing one milligram (one 65th grain) to the drachm, diluted with an equal quantity of hot water.

In a week the patient was able to return to his home in a distant State, the discharge from the urethra having entirely ceased, and pain and chordee having disappeared.

The author advised the same treatment for non-specific urethritis and gleet, but as Hydrozone is much stronger (two times) than the Peroxide, and perfectly harmless, he gives it the preference.

In vaginitis and vaginismus this treatment is of especial value. The treatment heretofore recommended by physicians, consisting of hot vaginal douches, either with or without some alkali, as sodium bicarbonate, followed by the injection of a small quantity of Peroxide of Hydrogen (medicinal) in warm or cold water is superseded by the single application of a hot solution of Hydrozone, one part in eight; the patient should use a fountain syringe which should be hung upon the wall about six feet from the floor; the patient sits upon a suitable vessel, and introduces the rubber tip of the hose well back into the vagina, while the labia are compressed by the disengaged hand; this allows the solution to so distend the vagina as to bring it in contact with all the diseased tissue. The injection should be repeated twice in twenty-four hours.

In uterine diseases, where the solution must be brought into contact with the endometrium, the following treatment is pursued:

The patient is placed in the dorsal position, with the hips well elevated; an ordinary dilator is employed to distend the cervix, so as to admit the nozzle of the syringe and permit the free egress of the injected fluid; (a suitable return flow tube can be used to better advantage, the Fritsche's douche is the best that can be used). The injection is then made, a liberal amount of the hot medicated solution being used.

There is no need of caution in chronic cases, that the effervescence which attends the destruction of the unhealthy tissue does not force some of the debris into the Fallopian tubes. This is best avoided by using a large quantity of the solution, and afterwards directing the patient to assume the upright position. The pressure thus brought to bear upon the uterus will cause the complete discharge of all debris.

A preliminary vaginal douche should always be taken, using the medicated solution, as otherwise, harm might ensue by the entrance into the uterus of the vaginal secretions. The author warns against the use of the vaginal douche if the cervix be patulous, as there is an almost certain danger of the infected vaginal debris being forced into the uterine cavity. To avoid this the vagina should be cleansed by the local use of the medicated solution through the speculum.

The author believes Hydrozone to be the best remedy for cystitis occurring either in the male or female. The bladder should be washed out with the solution (one to eight), a small quantity being used at first in chronic cases, owing to the painful muscular contractions following the withdrawal of the solution. The amount can be gradually increased. (A double current hard rubber catheter should always be used for that purpose). In gonorrhea, gleet and cystitis, the local treatment is oftentimes aided by the internal administration of hourly doses of calcium sulphide one-tenth of a grain.

Bona Fide Testimonials.

The Medical Fortnightly, Oct. 15.

That the commendation of a strong man carries with it great weight is a fact appreciated by all manufacturers, and whatever be their advertising policy, testimonials are sure to be a feature. But "strong men" are not anxious to have their names too often in print, though they do appreciate the excellence of a product, and wish to encourage the manufacturer. This has led our leading manufacturers, and prominent in this class the Imperial Granum Co., to withold physicians' names when publishing testimonials. Published testimonials from this house are never signed, but the company guarantees that they are from men of repute, and stands ready to verify the claim should it be questioned.

"Grip."

C. A. Bryce, A. M., M. D., Richmond, Va., editor of *The Southern Clinic*, in writing upon the above subject, during an epidemic of la grippe, said:

"For the past four weeks or more, we have met with five times as much grip as anything else, and the number of cases in which the pulmonary and bronchial organs have been very slightly or not at all involved have been greater than we have noted in former invasions. On the contrary, grippal neuralgia, rheumatism, hepatitis and gastric congestions have been of far greater frequency, while in all the nervous system has been seriously depressed.

"The fatalities from pneumonia, meningitis and other complications have been fewer, showing plainly that we are gradually gaining an immunity from this zymotic invader. With each succeeding visitation of this trouble we have found it more and more necessary to watch out for the disease in disguise, and to treat these abnormal manifestations; consequently we have relied upon mild nervous sedatives, anodynes and heart sustainers rather than upon any specific line of treatment. Most cases will improve by being made to rest in bed and encourage action of skin and kidneys, with possibly minute doses of blue pill and quinine, or calomel and salol. We have found much benefit from the use of antikamnia and salol in the stage of pyrexia and muscular painfulness, and later on, when there was fever and bronchial cough and expectoration, from antikamnia and codeine. Throughout the attack, and after its intensity is over, the patient will require nerve and vascular tonics and reconstructives for some time."

In Children's Practice.

Dr. Goliner, of Erfurt, has recommended Papain, B. & S., in *Der Kinder-Arzt*, as exceptionally valuable in infantile dyspepsia and intestinal catarrh. He says: "I usually order 1½ grains Papain, B. & S., (for nursing infants), three times daily, with barley gruel and diluted milk fifteen minutes after each dose. After the third or fourth powder the infant's appetite increases, the spitting up or eructation ceases, ond the evacuations assume a normal yellow color—the previous fetid odor of the latter disappearing entirely, which is also proof of the antiseptic virtue of papain. For children over one year, I recommend a dosage of 3 to 4 grains Papain, B. & S. I have found it to be an excellent appetite-stimulating and digestion-promoting agent in children's practice."

DOCTOR:—Your library is not complete without the *Hypnotic Magazine*. Cost of this handsome monthly, including premium book on "Suggestive Therapeutics" is only one dollar ($1.00) a year. THE PSYCHIC PUBLISHING CO., 56 Fifth avenue, Chicago.

DR. J. W. DONALDSON, who was for several years professor of materia medica and therapeutics in the Kansas Medical College is now confined to his bed with tuberculosis.